

Appendix 3A-5: Summary of Annual Flows and Total Phosphorus Loads by Structure for Water Year 2008

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Table 1. Annual flows and total phosphorus loads by structure for Water Year 2008 (WY2008) (May 1, 2007–April 30, 2008).

Into STA1 Inflow Basin

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S5A_P	126.136	25,662	165
<i>S5A from EAA</i>	<i>117.970</i>	<i>21,031</i>	<i>145</i>
<i>S5A from East Beach</i>	<i>7.116</i>	<i>4,534</i>	<i>517</i>
<i>S5A from Lake</i>	<i>0.252</i>	<i>56</i>	<i>181</i>
<i>S5AW from Lake</i>	<i>0.000</i>	<i>0</i>	<i>n/a</i>
<i>S5AW from L8 Basin</i>	<i>0.023</i>	<i>2</i>	<i>62</i>
<i>Mass Balance Adjustment</i>	<i>0.775</i>	<i>39</i>	<i>41</i>
S5AS	0.884	197	181
<i>S5AS from Lake</i>	<i>0.884</i>	<i>197</i>	
<i>S5AS from L8 Basin</i>	<i>0.000</i>	<i>0</i>	
G300	42.781	2,012	38
G301	67.970	3,545	42
G311	16.880	2,518	121
Total	254.651	33,934	108

From STA1 Inflow Basin

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-5AS	152.786	10,643	56
<i>From S-5A</i>	<i>26.921</i>	<i>2786</i>	<i>84</i>
<i>from EAA</i>	<i>25.182</i>	<i>2273</i>	<i>73</i>
<i>from East Beach</i>	<i>1.519</i>	<i>490</i>	<i>262</i>
<i>from Lake</i>	<i>0.054</i>	<i>6</i>	<i>92</i>
<i>from L8 Basin</i>	<i>0.005</i>	<i>0</i>	<i>31</i>
<i>From WCA-1</i>	<i>88.076</i>	<i>3,653</i>	<i>34</i>
<i>From G-311</i>	<i>10.589</i>	<i>752</i>	<i>58</i>
<i>Mass Balance Adjustment</i>	<i>-19.445</i>	<i>-2693</i>	
Net S-5AS	133.341	7,951	48
G-300	0.000	0	n/a
G-301	0.000	0	n/a
G-302	116.291	26,574	185
<i>From S-5A</i>	<i>90.513</i>	<i>21455</i>	<i>192</i>
<i>from EAA</i>	<i>84.665</i>	<i>17504</i>	<i>168</i>
<i>from East Beach</i>	<i>5.107</i>	<i>3774</i>	<i>599</i>
<i>from Lake</i>	<i>0.181</i>	<i>47</i>	<i>210</i>
<i>from L8 Basin</i>	<i>0.017</i>	<i>1</i>	<i>72</i>
<i>From WCA-1</i>	<i>12.219</i>	<i>671</i>	<i>45</i>
<i>From G-311</i>	<i>2.797</i>	<i>280</i>	<i>81</i>
<i>Mass Balance Adjustment</i>	<i>-4.860</i>	<i>-2271</i>	
Net G-302	111.431	24,303	217
G-311	14.502	3,176	178
<i>From S-5A</i>	<i>8.684</i>	<i>1538</i>	<i>144</i>
<i>from EAA</i>	<i>8.123</i>	<i>1,254</i>	<i>125</i>
<i>from East Beach</i>	<i>0.490</i>	<i>270</i>	<i>447</i>
<i>from Lake</i>	<i>0.017</i>	<i>3</i>	<i>157</i>
<i>from L8 Basin</i>	<i>0.002</i>	<i>0</i>	<i>54</i>
<i>From WCA-1</i>	<i>1.215</i>	<i>72</i>	<i>48</i>
<i>Mass Balance Adjustment</i>	<i>-3.867</i>	<i>-1340</i>	
Net G-311	10.635	1,836	163
Total	255.408	34,090	108

Table 1. Continued.

Into WCA1

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
G300 & G301	0.000	0	n/a
<i>from EAA</i>	0.000	0	n/a
<i>from East Beach</i>	0.000	0	n/a
<i>from Lake</i>	0.000	0	n/a
<i>from L8 Basin</i>	0.000	0	n/a
<i>From WCA1</i>	0.000	0	n/a
<i>from G311</i>	0.000	0	n/a
<i>Mass Balance Adjustment</i>	0.000	0	
S362 (from STA-1E)	125.391	3,138	20
<i>from EAA</i>	8.935	224	20
<i>from East Beach</i>	0.539	13	20
<i>from Lake</i>	0.019	0	20
<i>from L8 Basin</i>	0.188	5	20
<i>From WCA1</i>	1.359	34	20
<i>from G311</i>	0.003	0	20
<i>C51W</i>	101.652	2,544	20
<i>From S361</i>	11.710	293	20
<i>Mass Balance Adjustment</i>	0.986	25	71
G251 (from STA-1W)	0.418	262	508
<i>from EAA</i>	0.317	199	508
<i>from East Beach</i>	0.019	12	508
<i>from Lake</i>	0.001	0	508
<i>from L8 Basin</i>	0.000	0	508
<i>From WCA1</i>	0.046	29	508
<i>from G311</i>	0.010	7	508
<i>Mass Balance Adjustment</i>	0.024	15	508
G310 (from STA-1W)	116.584	7,349	51
<i>from EAA</i>	88.579	5,584	51
<i>from East Beach</i>	5.343	337	51
<i>from Lake</i>	0.189	12	51
<i>from L8 Basin</i>	0.018	1	51
<i>From WCA1</i>	12.784	806	51
<i>from G311</i>	2.927	184	51
<i>Mass Balance Adjustment</i>	6.743	425	51
ACME1 (from Basin B)	0.000	0	n/a
ACME2 (from Basin B)	0.000	0	n/a
Total	242.393	10,749	36

From WCA1

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S10A	17.021	357	17
S10C	25.289	514	16
S10D	59.536	1502	20
S39	0.353	7	15
G300	42.781	2,012	38
G301	67.970	3,545	42
G94A	0.557	15	22
G94B	0.006	0	42
G94C	0.267	7	20
Total	213.780	7,958	30

Table 1. Continued.

Into WCA2

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
G335 (from STA-2)	227.003	6,085	22
<i>from EAA</i>	211.476	5,669	22
<i>from East Beach</i>	15.005	402	22
<i>from Lake</i>	0.522	14	22
<i>Mass Balance Adjustment</i>	0.000	0	22
S7	159.353	3,817	19
<i>from STA 3/4</i>	129.547	3,217	20 ¹
<i>From Lake O</i>	0.174	4	20
<i>from EAA</i>	123.454	3,046	20
<i>From C-139</i>	0.736	18	20
<i>From SFCD</i>	3.720	92	20
<i>From SSDD</i>	1.464	36	20
<i>From G371</i>	0.124	6	38
<i>from Lake O</i>	0.000	0	38
<i>from EAA</i>	0.124	6	38
<i>Back flow (S7(-)-G371(-) G373(-)+G357(-))</i>	17.867	419	19
<i>Mass Balance Adjustment</i>	11.814	176	12
S10A (from WCA1)	17.021	357	17
S10C (from WCA1)	25.289	514	16
S10D (from WCA1)	59.536	1,502	20
N. Springs Improv. District	0.000	0	n/a
Total	488.202	12,275	20

From WCA2

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S7	107.901	1,992	15
S11A (from WCA2)	103.975	1,074	8
S11B (from WCA2)	119.464	2,750	19
S11C (from WCA2)	180.365	2,544	11
S38	0.706	8	10
S34	0.000	0	n/a
Total	512.411	8,369	13

Table 1. Continued.

Into WCA3

Structure	Phosphorus		
	Flow 1000 ac-ft	Load (kg)	FWMC (ppb)
S140 (from L28 Canal)	90.340	4,046	36
S190 (from Feeder Canal)	25.310	3,151	101
G407	0.000	0	n/a
STA6	2.458	117	38
S8	26.852	561	17
From STA3/4	21.830	542	20
From Lake O	0.029	1	20
From EAA	20.803	513	20
From C-139	0.124	3	20
From SFCD	0.627	15	20
From SSDD	0.247	6	20
From G373	1.661	98	48
From Lake O	1.208	72	48
From EAA	0.388	23	48
From C-139	0.008	1	48
From SFCD	0.028	2	48
From SSDD	0.029	2	48
STA5	2.035	240	96
Back flow (S7(-)-G371(-) G373(-)+G357(-))	-	3.011	71
Mass Balance Adjustment	-1.684	-390	188
S150	111.584	2,574	19
from STA 3/4	90.713	2253	20
From Lake O	0.122	3	20
From EAA	86.446	2,133	20
From C-139	0.515	13	20
From SFCD	2.605	64	20
From SSDD	1.025	25	20
From G371	0.087	4	38
from Lake O	0.000	0	38
from EAA	0.087	4	38
Back flow (S7(-)-G371(-) G373(-)+G357(-))	-	12.511	293
Mass Balance Adjustment	8.273	24	2
G404 & G357	66.513	1,415	19
From STA3/4	54.072	1,343	20
From Lake O to G409	0.073	2	20
From EAA	51.528	1,271	20
From C-139	0.307	8	20
From SFCD	1.553	38	20
From SSDD	0.611	15	20
From G373	4.114	244	48
From Lake O	2.993	177	48
From EAA	0.960	57	48
From C-139	0.021	1	48
From SFCD	0.069	4	48
From SSDD	0.071	4	48
STA5	5.040	596	96
Back flow (S7(-)-G371(-) G373(-)+G357(-))	-	7.458	175
Mass Balance Adjustment	-4.171	-942	183
S11A (from WCA2)	103.975	1,074	8
S11B (from WCA2)	119.464	2,750	19
S11C (from WCA2)	180.365	2,544	11
G123 (from N. New River)	0.000	0	n/a
S9 (from C-11 West)	52.632	1,282	20
S9A (from C-11 West)	87.799	1,523	14
Total	867.292	21,037	20

From WCA3

Structure	Phosphorus		
	Flow 1000 ac-ft	Load (kg)	FWMC (ppb)
S150	0.000	0	n/a
S8	0.000	0	n/a
S31	0.012	0	10
S337	64.390	1,010	13
S343A	0.000	0	n/a
S343B	0.013	0	15
S344	0.000	0	n/a
S12A	2.061	37	15
S12B	7.279	104	12
S12C	9.257	120	11
S12D	19.336	278	12
S333 ²	66.584	1,107	13
S355A/S355B	0	0	n/a
G409	9.162	539	48
Total	178.095	3,196	15

Table 1. Continued.**Into Everglades National Park**

Structure	Flow 1000 ac-ft	Phosphorus	
		Load (kg)	FWMC (ppb)
S12A (from WCA3)	2.061	37	15
S12B (from WCA3)	7.279	104	12
S12C (from WCA3)	9.257	120	11
S12D (from WCA3)	19.336	278	12
S-333-S334 (from WCA3) ³	64.264	1081	14
S355A/S355B (from WCA3)	0	0	n/a
S174 (from L-31W)	0.000	0	n/a
S332D	32.689	262	6
S18C	124.381	1,163	8
Total	259.267	3,046	10
Total to EPA⁴	1249.307	36,745	24

From ENP

Structure	Flow 1000 ac-ft	Phosphorus	
		Load (kg)	FWMC (ppb)
S197	8.462	42	4
Total	8.462	42	4

FWMC = flow-weighted mean concentration

Total from EPA⁵	296.439	9,161	25
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¹ The values are proportionally calculated based on summation of EAA model outputs of S7 and S8 Basins² The value included S334 from WCA3.³ TP load was calculated using concentration at S333 and flow of S333-S334.⁴ Total loads to the EPA are calculated from total of WCA1,2,3 and Everglades National Park subtracted S10A,C,D; S11A,B,C; S12A,B,C,D; S333-S334 and S355A/S355B.⁵ Total loads from the EPA are calculated from the total from WCA1,2,3 for S39, G300, G301, G94A, G94B, G94C,S7, S38, S34, S150, S8, S31, S337, S343A, S343B, S344, S197, S333, subtracted S333-S334 (from WCA3 to ENP).